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DISEASES OF THE MIDDLE EAR— OTITIS MEDIA.

A paper read, by request, before the Delaware County Medical Society.

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REPORTED BY DR. W. MUIR ANGNEY.

In studying diseases of the ear, our object should be to take as a basis the principles of pathology, and to reduce their treatment, local as well as general, to the recognized rules of modern therapeutics and scientific surgery; but above all should we labor to divest this branch of medicine of that shroud of quackery, medical as well as popular, in which, until lately, it has been enveloped.

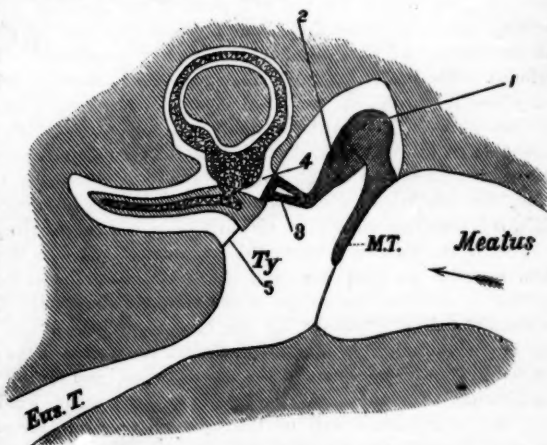
To make the subject of aural disease acceptable and profitable to the student and general practitioner, it is requisite to simplify, as far as possible, the details of examination, and methods of treatment.

The ear admits of being correctly divided into two parts, viz., a *conducting apparatus* and a *fundamental portion*; but the usual anatomical division of it is into the external, middle, and internal ear.

Inflammation of this middle division of the auditory apparatus constitutes what is known in Aural Surgery as Otitis Media, and this term comprises not only inflammation of the cavity of the tympanum, but also the membrana tympani, the Eusta-

chian tube and the mastoid cells, because, in a pathological point of view, the parts cannot fairly be separated. It is of the utmost importance for us, at the outset, to have a clear idea of the topographical anatomy of the tympanum, since most of the diseases of the ear occur in this space.

It will be best to consider somewhat in detail the several parts of the middle ear, in order to be able to trace the almost unlimited number of symptoms of an otitis media, and its effect upon contiguous organs.



M. T. Membrana tympani. Ty. Tympanum. Eus. T. Eustachian Tube. 1. Malleus. 2. Incus. 3. Stapes. 4. Fenestra ovalis. 5. Fenestra rotunda.

Instead of the demonstration made at the time of this lecture, from one of Prof. Azoux' large papier-maché models of the human ear, we have selected the accompanying sectional diagram,*

* Allen's Lectures on Aural Catarrh, London, 1874.

which will serve to illustrate the topography of the middle ear.

The tympanum represents an irregularly shaped octagon, its surface directed outward; or the *outer wall* may be described as the wall of the *membrana tympani* (so often incorrectly called the *tympanum*). The *inner wall* as the labyrinth wall; the *lower*, or floor, as the wall of the jugular vein; the *upper*, or roof, as the wall of the *dura mater*; while the *posterior wall* presents irregularly bordered openings into the appendix of the *tympanum*, the *mastoid process*; and *anteriorly* the *tympanum* terminates in the *Eustachian tube*, which serves for the escape of fluid as well as for ventilation.

Within the cavity of the *tympanum* are situated the *ossicles*, or ear bones (*hammer*, *anvil* and *stirrup*). These form an elastic *vibratile chain* connecting the outer with the inner ear, and serve to convey sound vibrations from the *drumhead* (*membrana tympani*) to the fluid in the labyrinth at the *oval window* (*fenestra ovalis*), which fluid will finally excite the fibres of the *auditory nerve* therein expanded.

In order to enable the membranes at either end of this chain of little bones to be tightened or relaxed, its mechanism is controlled by two muscles, the *tensor tympani* and the *stapedius*, which act antagonistically, although at times they seem to act together. Opposite the *oval window*, into which fits the foot plate of the *stirrup*, and on the other side of the *promontory* or prominence of the *cochlea*, is the *round window* (*fenestra rotunda*) or analogue, if we may use the term, of the *Eustachian tube*. Pressure inward, toward the *vestibule* and upon the fluid of the labyrinth, by the base of the *stapes*, is transmitted to the only movable portion, the membrane of the *round window*, and this, it is manifest, must bulge outward.

The *Eustachian tube* forms the communication between the *tympanum* and *pharynx*, and serves at once for the escape of the *tympanic secretion* and as a passage for the renewal of air in the middle ear, so that the air therein contained shall always remain of the same tension as the outer atmosphere. By the act of swallowing the membranous wall of the tube is retracted, through the action of the *tensor* and *levator palati* muscles, and at the same time the tube is opened. The mechanical action of these muscles protects the orifice of the tube against the entrance of liquids and morsels of food; although sometimes, as in the act of sneezing and vomiting, as well as in cases of cleft palate, substances get into the tube.

The *mastoid cells* represent the air-containing cellular spaces; a kind of reservoir or pneumatic appendage, as Hinton called it, of the *tympanum*.

The *muco-periosteal lining membrane* of the middle ear throughout, is spread over every surface reflected around the little bones, their joints and the tendons of the muscles, and covers the internal surface of the *membrana tympani*, and the membrane of the *round window*. It extends into the *mastoid cells*, and is continuous, through the *Eustachian tube*, with the great *gastro-pulmonary mucous membrane*; thus possessing an intimate and extensive connection with the *digestive* and *respiratory organs*. It is in this manner that morbid impressions are conveyed, through sympathy or continuity, and become a cause of deafness.

The vessels of the middle ear are derived partly from the region of the external carotid (the *stylo-mastoid* and *ascending pharyngeal*); partly from the *internal maxillary* (the *middle meningeal*); and the *internal carotid* also gives off, during its passage through the *petrous bone*, some branches to the *tympanum* and *Eustachian tube*.

The nerves of the middle ear are derived from quite as many sources. Sensation is supplied to the *mucous membrane* by the *glosso-pharyngeal* and by the *sympathetic*. The *otic* or *Arnold's ganglion*—the special ganglion for the organ of hearing—is formed by branches from the fifth, from the *glosso-pharyngeal* and from the *sympathetic*. The *tensor tympani* and *tensor palati* muscles are supplied by the *trigeminus*, and *motor internal pterygoid nerves* of the third division; both receive, as well, a small branch from the *otic ganglion*. The *levator-palati* muscle receives its nerves from the *vagus*, and the *stapedius* muscle from the *facial*. Lastly, the *chorda-tympani nerve*, from the *facial*, passes through the *tympanum* without giving off any branches there.

Finally, the physiological function of the *tympanum* is to furnish a free space for the vibrations of the *membrana tympani* and the *ossicles*, and for the distention of the membrane of the *round window*, by which means vibrations of sound are collected, intensified, or, on the other hand, diminished, and delicately transmitted to the fluid of the labyrinth and *auditory nerve*. Any change within this space which can produce any obstruction to the free vibration of these parts must be the cause of disturbances of hearing.

In considering the morbid changes that occur in the *auditory apparatus* when affected by

catarrh, or by the exanthematous disorders (especially scarlet fever and measles), we will find that the middle ear, or tympanum, is the part of the organ implicated.

This manner of dividing the subject will eliminate from our present design very many of the diseases of the external ear—the auricle and meatus—as well as those of the internal ear, consisting of the nervous portion and labyrinth. Even though we exclude all those disorders not arising from, or complicated with, any abnormal condition of the middle ear, its contents and appendages, it may still be safely asserted that in fully five-sixths of the cases which come under the notice of aural surgeons the disease and accompanying deafness have originated in the mucous membrane lining the throat, nasal passages, Eustachian tube and cavity of the tympanum.

Diseases of the middle ear or tympanum are best divided into the three following forms:—

(a.) Catarrhal inflammation (otitis media catarrhalis).

(b.) Purulent inflammation (otitis media purulenta).

(c.) Plastic or hypertrophic inflammation (otitis media hypertrophica).

All varieties of inflammation of the middle ear resolve themselves into one or the other of these forms, and becoming chronic, or terminating as an acute or subacute attack, can be traced out, and as the disease progresses our diagnosis can be more precisely made.

(a.) Catarrhal inflammation (otitis media catarrhalis), or simple aural catarrh. This form may be divided into *acute* and *chronic*.

Acute inflammation of the lining membrane of the tympanum is one of the most painful affections from which poor humanity must suffer. It may occur at all periods of life, but is generally a disease of youth, and seldom seen beyond middle age. It is usually induced by some definite cause, as cold, occurring, for instance, after "catching cold," getting the body, or more particularly the feet, wet; sudden exposure to a low temperature, blasts of harsh, cold wind, surf bathing, diving in cold water, sneezing, vomiting, riding in draughts in carriage or railway cars, and is generally seen in connection with catarrhal inflammation of the naso-pharyngeal passages, or less frequently, with bronchial catarrh. The lower or facial portion of the Eustachian tube is involved in nearly every severe case of coryza or acute naso-pharyngeal catarrh; and in the cases of persons particularly predisposed there is always induced what may be called tubal ca-

tarrh. In some there seems to be a peculiar tendency to inflammation of the naso-pharyngeal mucous membranes, and in such we must frequently find this variety of ear disease.

Loss of hearing generally occurs suddenly, and the impairment is usually of a high degree, although, on the other hand, an accession of pain at the middle or toward the end of the night is the first warning the patient receives. In many of those violent cases of screaming (occasionally convulsions) with which children are awakened out of sleep, an acute catarrhal otitis media is the cause. The pain is described as of the most excruciating character, and is usually compared to a "knife being thrust into the head." It may only be felt at intervals, but it is sure to be exacerbating at night, and it is more on account of the loss of sleep that the patient is so quickly prostrated. At times the patient escapes with nothing more than a sense of fullness or pressure in the ear, but in most cases the pain is of a deep-seated character and is dull and aching, and of an incessant, throbbing nature. Traction upon the auricle does not always cause pain, but pressure in front of the ear—upon the tragus—is more than painful, while the act of swallowing, motions of the jaw, coughing, blowing the nose, straining, and especially sneezing, are simply torture. Drinking cold fluids is also a cause of pain, as well as provocative at such times of neuralgic toothache. Tinnitus of many varieties (buzzing, hammering, booming, etc.) add to the patient's misery, and these noises in the ear are so disturbing that patients are often at a loss to know whether they are not actual ones, made near them. Giddiness may, at times, be present, and in those cases in which the fever is very severe, and the pain is more diffused over the head and less confined to the ear, while the difficulty in hearing is scarcely noticeable, the origin of the disease may easily be mistaken for congestion of the brain or meningeal irritation. Vertigo may be felt even while patients lie quietly in bed; the febrile symptoms may increase in the evening, almost to delirium, and it is no difficult matter to picture the anxious, staring countenance of a patient reduced and excited by loss of sleep, fever, and pain; to say nothing of the accompanying deafness and demoralizing tinnitus.

Therefore is it especially difficult, in the case of children, to distinguish between acute aural and cerebral disease.

Facial paralysis, from involvement of the portio dura, through swelling in its neighborhood, is sometimes seen, and should this attack be due

to exposure to cold, there will be more or less of a mucous discharge from the nose, with stuffing of the frontal sinus, acute frontal pain, redness of the conjunctiva, photophobia and lachrymation.

As regards the objective symptoms, it is true we do not require more than we have described in a general way, but for the importance of a more minute diagnosis we must inspect the meatus or auditory canal, which may or may not be swollen, even to occlusion. Should the canal be unobstructed, we will find the membrana tympani of a dull white or brownish color; all its opalescent lustre will have disappeared; the handle of the malleus will be pink, scarlet or brown, or, when the membrane bulges, it is not discernible at all. Later, that is after several days, the mastoid process may be swollen, red and painful on pressure, and simple motion of the head may be impossible. Politzer describes the membrana tympani, in such cases, as generally looking like a polished copper plate.

In addition to these local symptoms, there is more or less fever, the tongue is white, dry, and even furred; pulse quick, skin dry, bowels constipated, urine scanty and highly colored, but *intense thirst is rare*. The countenance indicates agony, and the patient cares but little for external surroundings, and tosses the head from side to side and moans. Partial coma we have seen but seldom present.

The prognosis is so far favorable. The immediate termination of the disease is threefold, *i. e.*, *resolution*, *perforation* and *extension* to vital structures.

In *resolution* the pain gradually subsides, and if there be swelling, as is rarely the case in this catarrhal form, this also disappears, and hearing is restored, although a certain amount of fullness and tinnitus (of a buzzing or ringing nature) remains for a considerable time.

In this form the inflammation never goes on to the formation of pus. If serum, or even muco-pus, be poured out from the tympanic mucous membrane, it is absorbed, or has found a gradual exit through the Eustachian tube, leaving the membrane thickened, or its function more or less impaired.

Perforation of the membrane rarely occurs, and if at all, generally during violent sneezing or blowing of the nose, or it may be, unprovoked, accompanied by a loud report. Such perforations permit the escape of a small amount of serous fluid, after which the edges of the opening quickly unite, and in twenty-four hours no sign of rupture can be seen. Perforations are induced by the entrance of substances from poultices, or by fluids

dropped into the meatus, as the parts thus encroached upon become irritated and macerated, and hence weakened.

The escape of the pent-up matter is always followed by an immediate sense of relief, thus showing that pressure by the fluid upon the unyielding structures of the cavity of the tympanum has caused the pain. The main point is, therefore, to evacuate the cavity of the tympanum of its contents, be they what they may, serum or muco-pus. This is best done, in the severer cases, by paracentesis of the membrana tympani (only when it bulges), and the blowing of the foreign matter through the opening by the air douche (Poltzer's method here described) or by the catheter.

Seldom have we found it necessary to perforate in cases of simple aural catarrh, as a good blast from the air douche usually disseminates all the intra-tympanic fluid, especially when the patient can be instructed in the application of Valsalva's method of inflation of the tympanum (self-inflation of air, with closed mouth and nostrils, after a previous deep inspiration).

By *extension*, we mean a continuation of the previously enumerated symptoms. The intra-tympanic secretion, from mucus and muco-pus changes to be a true pus (often ichorous), the mastoid cells become clogged, through an extension of the inflammatory process, the Eustachian tube is closed, the membrana tympani becomes thickened, and burrowing commences. The periosteum (mucous membrane of tympanum) is lifted up, and the inflammation is propagated to the dura mater through the thin lamina of bone, or it spreads, by way of the round or oval windows, into the labyrinth, and through the internal auditory meatus into the brain, causing meningitis or cerebritis, or even abscesses, by pressure, may form in the substance of the brain. The latter course, in cases of acute aural catarrh, is rare, but, nevertheless, cases are on record where the process described ran its course within a short time and terminated the life of the patient. Pain in acute inflammation of the tympanum is at times the cause of delirium, which symptom often misleads the novice.

Treatment of acute inflammation of the middle ear is most satisfactory, and by it most of the well earned laurels which crown the monotonous labor of the otologist are to be won. Local blood letting is first called for in every case, either by leeches, the artificial leech, or wet cups, or even scarification of the tragus and post auricular tissues. The American leech must be freely

used, while of the Spanish, the best, from five to eight are generally sufficient. The effect may be increased by encouraging the bleeding by hot fomentations, to the bites. The effect of local blood letting in acute aural disease, in relieving the intense pain, is magical, and with morphia used internally we are sure of affording prompt relief.

Where fluid of considerable quantity can be diagnosed within the tympanum, the membrana tympani may be perforated, and where the fluid is not satisfactorily diagnosed, the air douche can, with safety, and generally with success, be used. Heat and moisture, from poultices or fomentations, are next called for (the substance of the poultice in no case to come into contact with the ear, lest it enter and clog the meatus. The next best application, instead of a poultice, is a cloth wrung out of hot water, or better, spongio-pyraline, and covered with oil silk. A cathartic, composed of from two to three grains of calomel and five to eight grains of jalap, should be given. As an anodyne, morphia has been pronounced of unusual efficacy, and we would testify in its favor; it seems to be especially indicated in these cases, and is, with few exceptions, well borne. It can be given by the mouth or hypodermically, gr. $\frac{1}{4}$, at a dose, every half hour until relief is obtained. The old-fashioned remedy, of a bag filled with salt, chamomile flowers, or hops, must not be ignored, as, like most home-made remedies, it is good. In lieu of anything better hot water can be poured into the meatus with a teaspoon, at intervals of an hour, and allowed to remain fifteen minutes. This latter method is a good one in camp, or in places where hospital conveniences are not to be had. The severe pain will usually cease with this treatment, but the patient should remain in bed, while slight diaphoresis is induced by liq. ammon. acetatis or pulv. ipecac. comp.

The naso-pharyngeal catarrh should be carefully seen to, and as soon as the acute inflammatory symptoms have subsided, gargles of warm salt water, bicarbonate of soda and water, or alum or tannin in water, should be employed. Sage tea and alum, \mathfrak{zj} of the latter to Oij of the former, we have found very useful.

(b.) *Purulent inflammation*, in so far as it concerns the tympanum proper (time limits our going further), usually leads to rupture, ulceration and loss of substance in the membrana tympani, and continuous discharge of pus externally. This form of inflammation is often met with in nursing children, where a discharge existing for a month or more has, after careful treatment,

gotten well, and no impairment of the function of hearing has followed, as we can testify after having watched such cases. The acute variety is common in following the acute exanthemata, typhus, tuberculosis of the lungs and syphilis.

The exudation may be pure pus, of a yellowish or yellowish-green color and creamy consistency, which causes the meatus to be filled; the pus may run into the concha, or even drop upon the shoulder. When the meatus is cleansed by syringing with warm water (which must be done before we can make a diagnosis), the shining, deep-red lining membrane of the tympanum, its surface denuded of epithelium, can be seen.

Just here we would pause and make the remark that many of the cases of chronic purulent inflammation of the tympanum are caused either by neglect or through dire ignorance. On one hand, persons will patiently permit the sense of hearing greatly to be impaired, nay, even lost, on one side, without making an effort for its restitution, and when the lapse of months, or even years, has contributed to confirm disease and render such persons incurable, they generally respond to inquiries with regard to previous treatment, that they did not like to be "tampering" with their ears, or that they had been told that nothing could be done for them. On the other hand, not only will ignorant, uneducated persons say "the discharge must not be stopped," "Oh! no, it will go to the brain," or "it is good to have running ears," but also those who are educated and who ought to know better will make similar stupid remarks, and entertain equally absurd opinions; and what is worse than all, they will assure us that "their family physician advised them to let the ear alone." This is not vain talk, but solemn truth, and any otologist will bear us out in this statement. Little to be wondered at is it, then, that acute inflammatory processes within the ear run on to destructive ulceration and a fatal termination.

In chronic cases of purulent inflammation the disease leads to hyperplastic processes in the mucous membrane, and where there is secondary ulceration (which is relatively rare) there may be a deep loss of substance in this mucous membrane, and caries of the ossicula and walls of the tympanum may occur; we have had small portions of the exfoliated bone and necrosed ossicula brought to us by observant patients. If the pus is stagnant for any long time, dried pus, fatty detritus, and cholesterine may be found, with epithelium cells, forming masses, which by drying and shrinking fill and irritate the cavity of the tympanum or mastoid cells. Granulations may spring from all

parts of the mucous membrane, and sprouting, fill up the tympanum and project into the external meatus, and within a few days cause increased or even total deafness of that side.

After the healing of a chronic suppuration of the tympanum, where a perforation of the membrana tympani remains open, it will frequently be seen that the epidermis of the meatus extends into the tympanum, and even into the mastoid cells, and this affords the surest protection against a recurrence of suppuration, and is especially desirable.

Polypoid masses (*i.e.* granulations) are to be cut away with the wire snare, and the parts touched with nitrate of silver, or better, carbolic acid; great care being exercised that no more acid than is actually necessary be used. The several conditions must be treated as they arise. In the case of sclerosis, where there is considerable hearing remaining, the ear should not be meddled with. Where there is no cerumen a substitute must be used.* Where both ears are without the membrana tympani, an artificial drumhead may be inserted; but the pledget of cotton soaked in equal parts of glycerine and water has been found of most service.

The most successful treatment is that which combines careful attention to hygienic and dietetic rules. Proper cleansing is in many cases quite sufficient for a cure. For this purpose a syringe, holding from four to six ounces, or a douche, may be used. Castile soap solution, the favorite ear wash of the laity, we would here condemn. Warm, always warm, solutions of salt or soda and water are the best, and should be used in the morning, never at night. They should be used at least one hour before going out of doors, and cotton placed in the meatus, to be worn there only when out of the house. The cotton should never, on any account, be worn in the ears at night. The discharge must have free exit. If allowed to back up upon the mucous membrane, it will ferment and prevent any possible healing process. We have found the absorbent cotton to be the best, as it soaks up the discharge and the wearer can renew the pledgets from time to time. Ordinary cotton only pens up the discharge. To the alkaline washes may be added carbolic acid or alum; we have used both with benefit. Of late, we have used with marked success pow-

dered tannin and iodoform, one part of the latter to four of the former, dusted into the recently cleansed meatus. Caustic applications or solutions are in no case to be allowed in the hands of the patient. Such local applications are made through a large-sized vulcanite speculum, and by the light of a forehead mirror.

Where solutions are used, the head should be laid on a table with the diseased ear upward, and the operator should drop the warm solution in with one hand while he holds a moist sponge in the other, ready to catch any superfluous fluid that might accidentally run out of the ear, so as to save the patient's clothes and his own feelings, for nothing looks worse than a nitrate of silver-stained neck or cheek.

Be sure and allow the healing process a chance. Treat the symptoms. Keep the ear (tympanum) inflated by means of the air douche, and cleanse by syringing only when necessary. Perforations, even large ones, do heal, and the function of the membrana tympani will be almost restored. Pseudo-membrane only, but never the three-ply (mucous, fibroid and dermoid) membrane, is formed to close a large perforation or one of long standing.

Teach the patients how to care for their ears. Show them how to syringe or cleanse the tympanum, and how to dry the parts thoroughly, and also how to inflate the ear by Valsalva's method.

Syphilitic forms of otitis media, when taken in time, are quite amenable to treatment, and the method already described, with appropriate constitutional remedies, seldom fails. They are mostly of pharyngo-tubal origin.

Tuberculous otitis media we never saw cured, nor do we ever expect to cure such a case. Caseous inflammation, with the formation of miliary tubercle, in chronic purulent otitis media, is seen frequently accompanying pulmonary tuberculosis. In persons past middle life, too, we have yet to see a case of cure of chronic purulent otitis media, even in otherwise healthy subjects.

Counter irritation, by tincture of iodine, behind the ears and over the mastoid bone, acts as well, and is much less severe, than blisters, and we have found the combined effect of one coat each night to be much preferred.

Croupous, diphtheritic, or even gonorrheal inflammations of the middle ear, induced through inoculation by the towel or fingers, is seldom seen, but should be treated according to general principles.

Should an inflammation of the middle ear be allowed to run on through its chronic course,

* One grain of morphia and one grain of the yellow oxide of mercury to a drachm of cosmoline forms the best substitute for cerumen. It is to be used nightly or less frequently, as the more or less dry condition of the meatus indicates.

and perchance cease and heal, the connecting bands thrown out by contact of inflamed surfaces or by pathological action bind the parts together, or by sclerosis the parts are so contracted that the ossicles are crippled, their joints are ankylosed, and the result is most disastrous to hearing.

Before closing we must refer to "tinnitus aurium," or noises in the ear. This symptom occurring in the course of an acute inflammation of the tympanum is due to pressure by swelling, exudation and increased circulation. This latter form is, of course, the most amenable to treatment, and is the last lingering symptom in acute cases. In chronic suppurative inflammation the tinnitus often remains, and is caused by the constant rush of atmospheric air through a perforation in the membrana tympani, by a patulous Eustachian tube, or by the pressure of the swollen, sclerosed,—cicatricial—parts upon the labyrinthine fluid, through the stapes or thickened, unmovable membrane of the round window.

One form of tinnitus, known as pulsating, is caused by functional disease of the heart or arteries; it is more rare, and is quite incurable, as may easily be imagined, although there are rare cases of cure from ligation of the carotid. One well marked peculiarity to be noticed in all patients suffering from this form of tinnitus is, that they often suppose the noises they hear must be heard by others standing near, and it is sometimes well for us to give ear to their story, where we might often be inclined to smile. Patients' seemingly ridiculous suggestions are not always so absurd as they appear, and he who would learn will, at least now and then, stop and listen.

In conclusion, allow us to offer a protest against the promiscuous dropping of any fluid, even water, into the external auditory meatus, in cases of inflammation of the middle ear. Laudanum is considered as a panacea in all cases of earache, no matter from what cause it may have arisen; and drops, oils, and liniments, some of them of the most caustic nature, are, without mercy and without discrimination, poured into the external meatus, by those who, like the regicide of old—

"Stole,

With juice of cursed hebenon in a vial,
And in the porches of the ear did pour
The leprous distillment."

The late Sir William Wilde humorously but truly writes, and we quote his experience. "Friends often ask us, 'Have you found any new cure for deafness?' We do not propose to invent or introduce new remedies. We labor to make the well established rules of practice in

the treatment of other organs applicable to the management of aural diseases. Like most students of our day, we were taught theoretically to believe, and practically to observe, that we 'knew nothing' about diseases of the organs of hearing." This was the dictum honestly expressed by the "heads of the profession," men from whom the public were willing to receive a fearless, candid opinion, either immediately upon being consulted or after a few trials of the "ordinary means," to wit, syringing with hot water and soap, either castile, soft yellow, or old brown windsor, *in the hope* that the deafness or the noise in the ears might arise from a collection of hardened wax; then settling the digestive organs by purgatives and a "course of bitters," lest the affection might be "owing to the stomach." The human stomach has much to answer for in deranging the system, no doubt; but the mischief of which it is daily accused, as every one extensively engaged in practice is aware, is beyond belief. There is scarcely a disease of the ear which we treat, no matter how local, upon which, if we question the patient as to its duration, he will not say, "Oh! it is, indeed, of pretty long standing, but I was waiting to have my stomach put to rights, as I am told that I am very bilious." Next in order, in routine practice, is blistering behind the ears, tried in order to draw away some peccant humor that had, *perhaps*, accumulated around the delicate organ of hearing.

These, and like methods, failing to give relief, stimulants, often of a very acrid nature, are poured into the external auditory passages, either to restore the secretion, under the impression that what is a mere attending symptom is the disease, or to excite or arouse the dormant nervous power; and hot tinctures, turpentine, creasote and pungent essential oils, are applied to the external surface of the tympanic membrane without mercy. Some physicians resort to more palliative means, recommending some warm almond oil to be dropped into the ear at bedtime, or eau de cologne to be rubbed upon the side of the cheek adjoining the auricle, at the same time advising a little black wool to be retained in the meatus in order to preserve the organ from exposure to cold. To give, however, fair play to the latter remedy, it should be prescribed in full; and according to the old popular superstition, which is still extensively adhered to, the wool should be procured from the left forefoot of a six-year old black ram! Some advise a slice of fat bacon to be inserted into the meatus every second night; and now glycerine has become the fash-

ionable remedy. All these various means having failed to give relief, the patient is recommended—an easy mode of getting rid of him—to give galvanism and electricity a fair trial; and if they do not succeed, change of air and scene, sea bathing, or a “course of waters” at some of the fashionable places of resort is prescribed. Despairing of relief from the legalized practitioner, and becoming disheartened at the different opinions from men of repute and eminence, we need not wonder that suffering patients throw themselves into the hands of quacks and nostrum mongers.

INUNCTION IN SCARLET FEVER—IS IT A PROPHYLACTIC?

Read before the Northern Medical Association of Philadelphia,

BY JAMES B. WALKER, M.D., PH.D.,

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In the absence of our regular essayist for this evening, I will, with your permission, introduce some thoughts for your consideration, concerning the use of inunctions in scarlet fever; and more particularly to the fact that in addition to their usually ascribed benefits I believe them to deserve the additional one of being *prophylactic*.

As conservators of the public health, and especially of the health of those families entrusted to our care, the matter of prophylaxis is of the utmost importance to us. Scarlet fever is believed to arise by contagion in the vast majority, if not in all, cases, being transmissible from the sick to the well, either by direct exposure or indirectly by fomites.

The agents which have enjoyed a reputation as prophylactics in this disease are of such a character that the healthy must take them in order to serve as antidotes to such poison as may be absorbed. Belladonna for a time enjoyed quite a reputation in this respect, and is still employed quite extensively by many practitioners; where, however, it has been subjected to careful experiment, it has repeatedly and utterly failed as a protective, and hence our faith in it has been lost. Numerous agents have been recommended for their supposed power to disinfect the tissues of those who are exposed to the poison, so that the would-be destroyer is destroyed. Among the latter is sulpho-carbolate of sodium, recommended by Drs. Brackenridge and W. Scott, and reputed to have proven satisfactory in doses of from 5 to 30 grains, according to the age, and to be repeated three or four times daily. However successful these agents may prove them-

selves to be, they will seldom be thoroughly and extensively employed, because they necessitate the dosing of the *well*, and that not always with the most palatable substances.

In treating some cases of this affection recently, my attention was directed to the results of inunction; and I am forced to believe that in this method of treatment we have a prophylactic agent which possesses some advantages over many of those previously mentioned. The chief advantage it possesses is that the *infected organism receives the treatment*, and not the healthy ones; and further, that the treatment is directly beneficial to the patient also.

Inunctions, though recommended by most authorities on scarlet fever, are too frequently either slighted entirely, or else very unsystematically employed by many practitioners. The rubbing with fat bacon, advised by some neighborly old lady, is acquiesced in because it will do no harm, and may make the attendants feel that they are doing something in the way of help. Others direct that inunctions be used, without detailing the method of application or frequency.

The importance of the treatment will be readily understood by a little reflection. The chief symptoms of the early stage of scarlet fever are intense itching and consequent restlessness, which latter may gradually shade into convulsions. By allaying the itching the restlessness may be almost or entirely prevented, as abundant evidence testifies. The child tossing and crying in its wretchedness is soothed into a quiet slumber as the well-oiled palm traverses its surface, and the convulsion which seemed imminent is warded off. So much for the oiling as it is generally employed.

In the first of the cases which fell into my hands during the past winter I used the inunction every two hours, or more frequently if the child became restless. Instead of ceasing the inunction as the febrile and restless stage declined, I decided to continue it, with the idea of avoiding the dangers of exposure after the hot bath (95–98° Fahr.), which the child was receiving night and morning. Anointing with warm sweet oil was directed after removal from the bath, the same to be repeated at intervals of four hours between baths. Although the child had a profuse eruption, the desquamative stage could scarcely be called such, there being no free scaling whatever. The skin was pliant, soft and secretive, markedly in contrast with the usual dry, rough skin of this stage, even where desquamation is not excessive. I concluded that

something was gained in keeping the skin in this secretive condition, by avoiding, in a measure, at least, the dangers of nephritic trouble, so frequent and so serious as a sequel to this disease.

I was still more impressed with the entire absence of free scaling. On inquiry I learned that scales were quite perceptible in the water of the bath. The inunctions had succeeded in keeping those which were proliferated in contact with the skin, until removed therefrom by the bath. The query, therefore, presented itself: If, as is generally conceded, the epidermic scales are loaded with the scarlet fever poison, and furnish the chief means of spreading the disease, *will not any means which prevents their free escape be so far a measure of prophylaxis?* Acting upon this suggestion, I have treated the cases which have since fallen under my care accordingly; and although some of the cases had the eruption in an intense degree, yet in no case was there more than the slightest desquamation, and in none were the few scales formed found lying freely and loosely upon the surface, nor entangled in the gathers of the garments. In no case was there an instance of contagion. However, the number of cases have been too few to draw any just conclusion as regards the success of the measure as a prophylactic.

The advantages of inunction are patent in every stage of this disease; and, while other remedial agents may be called for by special symptoms varying with the case, no case, however slight, can be other than benefited by judicious and systematic inunction. Its claims for more general use rest upon the following facts:—

1. Its action during the febrile stage removes restlessness, lessens the liability to convulsions, and insures healthful sleep.

2. Continued in the post-febrile stage, it keeps the skin in a secretive condition, thus rendering dropsies, etc., due to nephritic implication, much less liable to occur.

3. By lessening cutaneous irritability in the early stages, it directly lessens the amount of desquamation, thus immediately and measurably detracting from the number of agents engaged in the spread and continuance of the peculiar poison.

4. As seclusion of patients affected with this disease has proven to be at once the simplest and most efficient means of protecting the household, inunction perfects this seclusion, by entangling and retaining such scales as are proliferated until they can be removed by the bath, which, if thought necessary, may be medicated by a disinfectant. The ointment used for inunction may

also be similarly medicated in cases of peculiar severity, or where desquamation is excessive.

5. This latter effect justifies us in classing inunction with the prophylactics of this disease; and until proven otherwise, I cannot but esteem it at once the most efficient of all the prophylactics, because of its universal application.

MEDICAL SOCIETIES.

NORTHERN MEDICAL ASSOCIATION OF PHILADELPHIA.

At the meeting of the Society held in May, 1879, Dr. James B. Walker read a paper on

Inunction in Scarlatina,

which is given on page 162.

After its reading, the discussion was opened.

Dr. Rihl said he had been aware of the benefits of inunction in the early stage of this disease, and had employed it for several years; always with relief to the burning sensation in the skin, and decrease of the fever. He had not continued its use through the desquamative stage, but should try its effects in future cases. He thought the disease had changed in character within a few years; at least, his own practice showed a much smaller per cent. of severe cases than formerly. He asked if the members had observed the time of incubation; he had recently had his attention called to it by two cases which pointed to a much shorter period than that mentioned in the books. They occurred in two children living in a little village some miles up the river Delaware, where there had not been a case of scarlatina for several years. The children had not left the village, nor been in company with any one from outside for several months, until they came to Philadelphia one morning, by boat, and returned the same evening. Both were attacked with scarlatina within twenty-four hours of their return. He also asked what was the custom of the members about restraining the children within doors after being apparently well of this disease. His own custom had been to require four weeks. He had just lost a little patient whom its parents took out, contrary to his directions, two weeks after the desquamative stage was over. The day was not inclement, yet the child was immediately worse, and died within a month. He thought the child so well that he did not examine the urine before the exposure, and therefore could not say that it was the sole cause of death.

Dr. Hatfield said it was exceedingly difficult to ascertain the exact time of reception of the poison. He could recall two recent cases in which the time was supposed to be known. They were in the same family, and both exposed together. One was attacked with fever five days, the other not until twelve days, after. Supposing the second took the disease from the first, and not from the original exposure, the time of incubation would be nearly the same in each.

Dr. Hall said he remembered three cases occurring in the same family, where they were at

tacked successively, with intervals of twelve days. There was no communication with any one outside the family after the first was attacked.

Dr. Stone thought that prophylaxis was not sufficiently appreciated by the public, or insisted upon by the physicians. The mortuary reports show scarlatina to be more deadly than small-pox, yet it did not create the same alarm. The consequence was that when the doctor gave the proper directions they were not followed, even in families otherwise intelligent.

Dr. Sauter remarked that it would be impossible to judge of the value of any method of prophylaxis without a very large number of observa-

tions, on account of the apparent capriciousness of the contagion. He attended a family only a short time ago in which this was remarkably illustrated. There were four children, three of whom were attacked successively with the anginous variety of a most malignant type—all dying. The fourth child remained in the room during the entire sickness of the others, part of the time occupying the same bed with one of them, yet did not have a single symptom of the disease. There was no attempt at prophylaxis. He would say that the family were not only poor, but refused hospital treatment and all available means of isolation.

EDITORIAL DEPARTMENT.

PERISCOPE.

Pigmentation of the Face in Chronic Abdominal Affections.

Dr. N. Gueneau de Mussy (*Revue Médicale*, February, 1879, quoted in the *British Medical Journal*) says that, twenty years ago, in a work on the cause and treatment of phthisis, he pointed out the coexistence of pigmentary patches on the face with abdominal tubercle. Since then the two conditions have been so constantly associated that he now regards the one as a sign of the other. Tubercular disease of the abdominal viscera is usually indicated by functional troubles, which deprive the pigmentation of any diagnostic importance, but not always; and this pigmentation may become of value. It forms bronzed patches, which usually commence in the temporal fossa, and then spread over the forehead, where they may cover the greater part, or lose themselves in a diffused coloration, like that of mulattoes. Sometimes they invade other parts, the nose or the malar region; and they may even appear on other parts of the body, particularly the backs of the hands, and are sometimes so extensive as to constitute a species of Addison's disease. Pigmentation is found in other abdominal affections besides tuberculosis. Dr. Gueneau de Mussy has met with it in four cases of cirrhosis with ascites, and in a case of cancer of the stomach; it is present also in the well-known pigmentation of pregnant women, and may last several months after confinement should anything interfere with restoration to health. It is to be distinguished, however, though often coupled with it, from the greenish-yellow tint not uncommon in abdominal phthisis, and which appears to be associated with fatty degeneration of the liver; and if by its objective character this pigmentation put on the aspect of the melanoderma described by Addison, if in some cases, by its extent, it take this disease as its model, and appears in, indeed, an early stage, it may well be asked if it have not some pathogenic connections with Addison's disease, if it do not own the same cause, acting

with less energy. Dr. Gueneau de Mussy then passes in quick review the causes of Addison's disease, and concludes that all excess of pigment is developed under the same pathogenic condition; and this is a lesion or irritation of the nervous threads which form part of the suprarenal capsules, and form plexuses in their vicinity. All irritation or lesions of these nerves, in whatever part of the abdomen they commence, will end in the same result. Clinical observation is in accord with this induction. It has been seen that the most different affections, situated in all parts of the abdomen, are associated with the melanoderma of Addison's disease, or with the partial pigmentation now more particularly in question. And an irritation which is physiological and not habitual, such as that which results from enlargement and congestion of the uterus in gestation, produces the same effect, and explains the formation of the pigmentary mass which is characteristic of the pregnant state.

The Diagnosis and Treatment of Intestinal Occlusion and Obstruction.

M. Bulteau, in a recent thesis, carefully studies, one by one, 1st, the different symptoms which constitute the difference between an acute or chronic intestinal occlusion and other affections which are apt to simulate it; 2d, the pathological symptoms which may lead to diagnose the nature and seat of the occlusion. Among these symptoms are the conformation of the abdomen, the presence or absence of an abdominal tumor, the nature of the vomited matter, and the time when the vomiting sets in, the urinary secretion, etc. The second part contains a review of the different modes of treatment which have been used in this affection, such as purgatives, injections, abdominal massage, galvanization of the intestine, etc., and the author arrives at the following conclusions: 1st. In acute intestinal occlusion, if all other means have failed, gastrotomy must be performed. 2d. In chronic intestinal occlusion, either gastrotomy, or enterotomy, or lumbar colotomy, must be performed. If the seat of the occlusion should be in the large

intestine, without the precise spot being known, it will be found necessary to practice caecal enterotomy. If, on the contrary, it should be in the sigmoid flexure or the rectum, either Littré's operation for enterotomy, or else Amussat's operation for colotomy, will be found to answer the purpose. In all other cases of chronic intestinal occlusion, according to Nélaton, enterotomy must be performed in the right iliac fossa.

Dr. Cosmo Logie gives, in the *British Medical Journal*, the notes of two cases where, by inversion of the body, serious symptoms of intestinal obstruction were overcome. One case, a young officer, apparently dying, on the tenth day of complete obstruction, was placed with his buttocks on a pile of cushions, his head and shoulders being dependent. In this position a copious oil and water enema was administered, and the whole abdomen was manipulated. In a few minutes the patient was relieved and out of danger. The second case was that of a gray-headed black, who was, at the time of the Indian mutiny, strung up by the heels and jolted up and down by his native doctor, with such good effect that, although the case had been pronounced hopeless by the army doctors, yet the patient followed on the march the next day.

Jaborandi in Puerperal Convulsions.

At a meeting of the Obstetrical Society of New York, Dr. Gillette related the history of a case of puerperal convulsions, in which jaborandi seemed to exert almost a specific beneficial effect. He first saw the patient late in the second stage of labor. She was suffering from intense headache, her face was flushed, her eyes were almost strabismic, and convulsions seemed threatening. Chloroform was at once administered, but just as the head passed the perineum she had a very serious convulsion, and from that passed into coma. He bled the patient about $\frac{1}{2}$ xij., but shortly after the bleeding another convulsion occurred; chloroform was renewed, and an attempt was made to establish diaphoresis, after administering a stimulating enema which produced a slight discharge from the bowels. The patient was wrapped in flannel blankets wrung from hot water, and was surrounded by bottles filled with hot water. A half drachm of the fl. ext. of jaborandi was given, and in about twenty minutes profuse perspiration appeared. Immediately upon the appearance of the diaphoresis, the patient came out of the coma. At the end of about two hours another convulsion occurred. The jaborandi was repeated, and diaphoresis was sustained for nearly twelve hours. No further convulsions occurred, and the patient gradually progressed toward recovery. About the tenth day after albumen reappeared in the urine, intense headache came on, jactitation ensued, and it seemed almost certain that another convulsion would occur. Jaborandi was administered; in about half an hour profuse diaphoresis was produced, the headache abated, the jactitation ceased, and the patient was soon perfectly comfortable. The same experience was repeated twice afterward. Dr. Gillette thought that the chloroform used at the beginning was not the curative agent altogether,

for the reason that the jaborandi was so efficient when given alone, and so many days subsequent to delivery. In this case the remedy did not produce salivation.

Iodoform as an External Antipyretic.

In an article in the *Deutsche Medicin. Wochenschrift* for June 7th, Dr. Colsfeld, of Bremen, describes a case in which he accidentally found that the external application of iodoform was followed by a lowering of temperature. The subject was a phthisical patient, whose temperature had risen to 103.4° Fahr. He complained of troublesome, ill-defined pain in the left front of the chest, for the relief of which, other means having failed, iodoform collodion (having a strength of 33.3 per cent.) was applied. The next day the temperature had fallen to 98.6° Fahr., and the pain in the chest had entirely disappeared. The iodoform was then omitted, and the temperature again rose; but it fell when the iodoform collodion was reapplied, the strength now used being ten per cent. The odor being unpleasant, the patient discontinued the application for two days; but the febrile symptoms set in so energetically that he again had recourse to it, with marked relief. Dr. Colsfeld says that he did not observe any ill effects to be produced by the application of the iodoform, but he thinks that the expectoration was reduced in quantity. He does not pretend to say that the application would be useful in reducing the febrile process in the purely inflammatory affections of the lungs, pleura, peritoneum, etc.; but he suggests that it might be tried. The author refers to the observations of Binz, who found that the internal administration of iodoform had the effect of reducing the respiration, pulse and temperature, in a cat.

The Expectant Plan in Chorea.

Dr. Tuckwell, of Oxford, recites the following case, illustrating this plan (*Lancet*, July 5):—

Its duration, severe though it was, will be seen to correspond singularly with the average duration of chorea treated by all kinds of medicines, as estimated by Hillier and Sée—"about ten weeks" and "sixty-nine days."

A. C—, a boy aged 10 years, was admitted on March 31st, 1877, suffering from a first attack of chorea, which had begun three weeks before admission, without any assignable cause. No history of rheumatism could be traced, either in the boy or his relatives. The chorea was very severe and general. The cheeks, tip of the nose and lips were reddened and excoriated, from friction against the pillow and constant spasmodic movements of the lips. No cardiac murmur could be detected. Pulse 100; evening temperature 99°. The boy was placed in a large crib, well padded round with pillows. He was ordered to be fed every two hours with milk, eggs, and light puddings; a little minced meat and mashed potato to be taken twice in the twenty-four hours; no stimulants; no medicine.

April 7th. No improvement, but rather an increase in the severity of the spasms. The lips were fissured, and the cheeks and nose badly ex-

coriated. The pulse had ranged from 90 to 110, and the temperature had never exceeded 99°. No cardiac murmur had been heard, though often listened for. He had been well nursed and steadily fed. The bowels had acted, and the urine had been passed naturally.

9th. A remarkable subsidence of the choreic movements had taken place in the past twenty-four hours. There had been a natural sleep of some hours.

23d. Since the last note the chorea had steadily abated. The boy was quiet, and sleeping and eating well. He was, however, quite unable to speak, and when spoken to grinned in an idiotic manner. He was also partly paralyzed in both his legs, so that he could only move them slowly in bed, and could not stand upright. He passed his urine and feces involuntarily. His temperature had kept normal, and his pulse had fallen to 80. Ordered to continue nourishment as before; no medicine.

30th. He was now able to hold his urine and feces, and pass them voluntarily. He could speak, and had a more natural expression. He was regaining power in his legs. The chorea was scarcely noticeable.

On May 17th he could talk well, stand and walk about the ward with a little help; and on the 22d the chorea had disappeared. He could walk strongly, and talk naturally. He was discharged to the Convalescent Home at Headington.

Duration of chorea before admission, three weeks; in hospital, seven weeks and three days; total duration, ten weeks and three days.

The Treatment of Vaginismus.

Dr. M. T. Gallard, of Paris, gives the following treatment for vaginismus (translated in the *St. Louis Courier of Medicine*): If there is redness or excoriations of the mucous membrane, I give the preference to iodoform, and formulate thus the ointment to use:—

	GRAMS.	
R. Iodoformi,		
Ol. theobromæ aa	2	3 ss
Axungia recentis,	15	3 iv. M.

If there is only pain, without any apparent alteration of the mucous membrane, I prescribe—

	GRAMS.	
R. Ext. belladonnæ,	3	gr. xlv
Axungia recentis,	15	gr. xlv. M.

In either case I direct to be made plugs of charpie, as small as they choose, to commence with, and in order not to frighten the patient, I charge her with the making of them, instructing her to count the threads which enter into each of these plugs, to be introduced into the vagina each night, after being anointed with one or the other of the two ointments mentioned above. If at first she uses the iodoform, she will be able, after a few days, to replace it by the belladonna, when the redness and excoriations or the eruption of the vulvar region has disappeared. Only, in either case, care must be taken to increase each day, by an imperceptible amount, but previously determined, the number of threads employed, 10, 12 or 15, for example. So we shall

secure, after a time, which will never be very long, the use of a plug of such size that, after having removed it, the place may be supplied by the virile member without the substitution causing any pain." He attributes the cure in these cases chiefly to the narcotic action of the unguents applied, though not denying that there may be advantage in the mechanical effect of the dilatation also.

He utterly condemns all use of the knife in such cases, unless, possibly, when the carunculae myrtiliformes are inflamed, swollen or ulcerated, when he would sometimes admit the ablation of these as a more speedy mode of cure than treatment by caustic only.

He observes that these cases are usually met with in young women newly married, or shortly after the first sexual approaches; and that they occur specially in those predisposed to hysteria and of a lymphatic temperament.

On the Duration of the Life of the Fœtus in Utero after the Mother's Death.

This question has been carefully investigated by C. Garezky, in his inaugural dissertation, St. Petersburg, 1878. He has collected 379 cases, in which the Cæsarean operation was performed after death; 308 infants were extracted dead, 37 showed signs of life, 34 were born alive; but of these, only five remained alive for some time. The author then gives a sketch of Breslau's experiments on animals, and sums his conclusions up as follows: 1. The fœtus undoubtedly survives the sudden death of the mother. 2. If it can be extracted in the course of the first six minutes, it may be born alive. 3. Six to ten minutes after the mother's death the child may still be alive, though slightly asphyxiated. 4. Ten to twenty-six minutes after death the infant is highly asphyxiated. 5. In a great many cases the infants are either highly asphyxiated or dead after the first minute. 6. The shorter the time is which elapses between the cause of the mother's death and the ceasing of the cardiac action, the longer the fœtus remains alive. 7. If the mother's death have been caused by some quickly acting poison, the chances for the child's life are greater than when it has been brought on by some other cause.

Iodoform in Chancres.

Dr. A. Sheen writes to the *Practitioner*:—

Mr. B. Hill, in his "Student's Manual of Venereal Diseases," published recently, says: "All chancres are best treated with iodoform: under its use healthy sores heal rapidly, creeping sores generally cease to spread, and sluggish ones take on healthy action." My own experience supports this statement most fully. I cannot explain the manner in which it acts, but that it does have a most remarkable effect in promoting the healing, not only of ordinary chancres, but of many other sores, I can have no possible reasonable doubt. It is what I might call a reliable remedy, and often saves one a deal of trouble. Its effects seem almost magical. You sprinkle a little of the crystals, powdered or unpowdered, over the sore, cover this with a bit of dry lint, or vaseline spread on lint,

and at your inspection next day you find that healing has progressed rapidly, the sore has filled in considerably if it is a deep one, there is but little discharge and no smell, and you have only to repeat the dressing, and so go on from day to day until healing is complete. The relief from pain is often remarkable.

The Use of Atropia in Tetanus.

In the *Lancet*, July 12, Surgeon D. H. Cullimore describes the case of a soldier who had his great toe mashed by a horse, and amputated. Symptoms of tetanus followed. Surgeon C. proceeds—

As this was the fourth case that came under my notice in the space of six months, one of which was treated with chloral, and the others with hypodermic injection of atropia in combination with morphia, and as all three terminated fatally between the ninth and twelfth day, I felt convinced that chloral would prove a failure, and, judging from the physiological effect of morphia and atropia, which are the reverse of each other, at least in so far as their action on the pupil is observed, I determined to try atropia alone, more with the object of noting its action than with any but a vague hope that it might be the means of preventing a fatal issue. On the first appearance of the symptoms one-sixtieth of a grain of atropia was injected hypodermically over the dorsal spinal region, and was repeated three times daily. On the morning of the second day one-fortieth of a grain was injected every four hours, and continued for six successive days, till the spasms had entirely ceased, and the stiffness disappeared from all but the muscles of the neck and face, which, as they were the first to become affected, continued longest under the influence of the disease. On the eighth and ninth days the dose was reduced to one-sixtieth of a grain twice a day, and subsequently reduced to one-sixtieth of a grain at night, for a further period of two days, ending on the evening of the eleventh day from the commencement of the disease, when the patient, though not yet cured, was well out of danger and in a fair way to recovery.

I should have mentioned that the bowels were constipated throughout, and were acted upon by four grains of calomel, with forty grains of compound jalap powder, administered every other day, and that after each evacuation the patient invariably expressed himself "much lighter" and relieved.

Under the influence of tonics and nourishing diet, with an occasional purgative, such progress was made that on the twenty-sixth day from his admission into the hospital, and on the twenty-first from the manifestation of tetanic symptoms, the man was discharged. During his stay in the hospital, and within the space of nine days, two grains of atropia were introduced into his system, which caused neither dilatation of the pupil nor any continued increase of temperature; in fact, there was no ascertainable physiological action, with, perhaps, the exception of drowsiness and slight occasional hyperæsthesia of the surface, which I am now more inclined to connect with the disease than the remedy.

On Traumatic Ruptures of the Heart.

In considering these injuries, M. Terrillon, in *Le Progrès Médical*, states that fractures of the ribs, driving inward of the sternum, and the penetration of missiles, are the ordinary causes of traumatic cardiac ruptures; three sorts of lesions may be thus produced:—

1. More or less extensive rupture of the cardiac walls, with death rapidly ensuing.
2. Contusions and ecchymoses of the heart's muscle; these, at certain parts of the organ, do not seem to exert any influence on its movements.
3. An internal rupture of a valve, of the cords, pillars, or even the septa, may take place. These lesions may for a certain time leave the functions of the heart intact.

The following cases are brought forward:—

1. Prescott Hewett. The patient was twelve years of age, and died four hours after a fall. An examination showed an ecchymosis, and slight tear.

M. Terrillon considers the mode in which these ruptures are brought about. If the injury is received during the systole of the heart, the state of contraction predisposes the rupture to take place at the point struck, probably the ventricular wall, but the shock, if of sufficient force, may also be communicated to the pillars and septa, and cause there, also, a solution of continuity. If the force be applied during the stage of diastole, the cavities of the organ are filled with blood and communicating, so that the eccentric compression would produce a tear in the resisting valves or the septum; hence a rupture of these parts, with no, or at most very slight, traces of an ecchymosis of the cardiac walls.

Poisoning by *Veratrum Viride*.

This subject, recently quite fully discussed in this journal, receives additional light from an account by M. Thiery, in a French veterinary journal, quoted in the *London Medical Record*, of July 15.

Two cows and a mule ate a quantity of fresh *veratrum viride*. Both cows died, one in two, the other in four, weeks. The symptoms were diarrhœa, with violent straining, by which, three or four days later, only a little blackish, glairy matter was expelled. The abdomen was inflated; the animals were very much depressed at times; the pulse, up to the end, was slow, weak, and intermittent. The pulsations of the heart were feeble, and after five or six pulsations the heart generally stopped beating for a time, equivalent to a pulsation and a half. The animals grew gradually, but persistently, thinner; milk was secreted up to the last day, but in very small quantities. At the post-mortem the following changes were found in the bodies. A few red spots in the small intestines, an ecchymosis, with several ulcerations, near the pylorus, and numerous ecchymoses in the heart, especially in the left ventricle, beneath the endocardium and pericardium. The other organs were healthy, but it is very much to be regretted that the nervous system had not been examined.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—Dr. W. J. Hoffman has published, through the Department of the Interior, U. S. Geological Survey, a study of a skull found in the Chaco Cañon, New Mexico, belonging to the ancient race of cliff dwellers. It is an interesting contribution to ethnography.

—The precautions requisite in the administration of ergot, is the subject of a reprint by Dr. J. W. Compton, Evansville, Indiana. We do not notice among the contraindications he specifies any that have not already been urged by previous writers. No doubt the drug is sometimes given when it does more harm than good.

—The report of the Board of Health of the city of Reading fills an octavo of 100 pages. It is carefully prepared, and highly creditable to the Board and its President, Dr. W. Murray Weidman. Much complaint is made of the lethargy of the city officials in carrying out sanitary recommendations.

—The North Carolina State Board of Health has published in convenient pamphlet form a series of directions for performing post-mortem examinations. They are adapted from the German regulation of 1877, and prepared by Dr. Thomas F. Wood, Secretary of the Board. By many they will be found useful and complete.

—Dr. J. W. Singleton, in a reprint from the St. Louis *Medical Journal*, pays a well merited tribute to the brave and ill-fated physicians who fell before the epidemic of yellow fever in the Southwest last year. It is entitled, "Medical Heroism of 1878." He ought to have added a full list of their names, and place and date of death.

—In an interesting paper by Dr. Swan M. Burnett, of Washington, D. C., he gives the results of an examination of the color sense of 3040 children in the colored schools of the District of Columbia. It appears that the colored race is less liable than the whites. Magnus found in 3273 white boys 3.27 per cent. to be color-blind; while Burnett, in 1349 colored boys, ranging from full-blood black to three-fourths white, only 1.6 per cent. color-blind.

—The *Transactions* of the South Carolina Medical Association, twenty-ninth annual session, April, 1879, make up a pamphlet of eighty odd pages. It contains the minutes of the proceedings at the session, and in an Appendix a

number of scientific papers read before the Association. Those of most general interest are Dr. T. G. Simons' "Observations on the Yellow Fever Epidemic of 1878," and Dr. Francis L. Parker's "Statistics of 131 Cases of Stone in the Bladder in South Carolina."

—A study of the limit of perception of musical tones by the human ear, is to be found in a reprint by Dr. Laurence Turnbull, of this city. His original experiments prove that increasing age surely diminishes the acuteness of perception of tones. This diminution, he believes, is not due simply to senile thickening of the membrana tympani, but also to a gradual narrowing and change of shape in the auditory meatus, together with alterations in the middle ear, diminution of conducting power of the bones, and diminished susceptibility of the auditory nerve, incident upon advancing years.

BOOK NOTICES.

Summer and its Diseases. By James C. Wilson, M.D. Philadelphia, Lindsay & Blakiston. Price 50 cents.

This is one of the American Health Primers, and comes a little late to be seasonable, but welcome for all that. It contains a great many suggestions that the public can profitably read and remember. At the same time, it perpetuates certain faults almost always found in this class of books. To illustrate: of what earthly use is it to tell the public that in diarrhoea the treatment is "simple evacuant remedies, such as castor oil with rhubarb, or, if there be any acidity of the matter vomited or the stools, rhubarb and magnesia, followed by astringents, such as bismuth, chalk mixture and brandy, or pepsine," etc. Either give specific directions or omit the topic altogether. Such vague generalities can do no good and may do harm. These useless directions are frequent in the book. We mark one rather amusing error for a writer who discourses so enthusiastically of the country. He attributes hay asthma to the pollen of the field corn, which he informs us (page 132), in the neighborhood of Philadelphia, comes into tassel about August 17th-23d! We suspect the author resembles the poet Thompson, writer of "The Seasons," who described so eloquently the sunrise, but was accused of being so indolent in the mornings that he never saw it.

The series of Primers is, we understand, achieving considerable popularity, and their merit is entitled to it.

THE
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 A WEEKLY JOURNAL,
 Issued every Saturday.

D. G. BRINTON, M.D., EDITOR.

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THE NATIONAL BOARD OF HEALTH AND ITS DUTIES.

The National Board of Health has had the usual difficulties to contend with which every far-sighted and philanthropic scheme must encounter from well meaning ignorance and deliberate jealousy.

At first there was a great howl on its supposed infringement of "State rights." A certain class of American politicians have never learned the moral of the fable of the bundle of sticks—that strength is in union, not in segregation.

From fearing that the Board would do too much, there was a sudden bound to the opposite conclusion, that it would do too little, or nothing at all. It was applied to, to perform the work of State and municipal authorities, even to pay for doing their work; and when it pointed out that such was not its sphere of action, it was abused. The newspapers said it did nothing but print manifestoes and magnify its own greatness. The Board publishes a weekly bulletin, and this became a large stone of offence to the public press,

as the reporters and correspondents seemed to think that was stealing their thunder.

Then, *quarantine*, that ugly word, brought on the Board a cartload of obloquy. It was asserted that their projects would lead to the destruction of commerce, and little short of the ruin of the nation. Nobody rightly knows what quarantine means, as its significations are various, therefore, it is at all times an alarming word, calling up visions of forty days' detention in pest-houses and infected ships.

More recently the daily editor has discovered that the Board sends out various inspectors, that it pays their traveling expenses, and even a salary besides, and this it regards as a turpitude of a flagrant description, and a sad instance of squandering the public money. How the Board could employ any better or surer means of obtaining accurate and prompt information has not been suggested.

Partly to enlighten the public on the precise position of the National Board, and especially as to its relations to local boards, the Vice President, Dr. JOHN S. BILLINGS, has written an open letter to the Sanitary Council of the Mississippi Valley. We make an extract from it:—

"It is the duty of the State and local health authorities to take the initiative in adopting rules and regulations for preventing the spread of contagious diseases. The National Board of Health has made certain recommendations for such rules, which it has printed and placed in your hands. These recommendations should be taken as indicating the minimum amount of precaution to be taken. A State or local authority may make more stringent rules than these, and if they are too stringent, even to absolute non-intercourse, this board has no power to interfere. It is only when a State or local authority refuses to take even the precaution considered indispensable by this board that we can take action legally in the matter. In the next place, I would observe that this board is not expected to do all the work of prevention, nor to pay for the doing of such work. The State and local boards should first do what they can, and then we can come to supplement their efforts—to aid and coöperate—in the terms of the law. It is, therefore, the duty of State and local authorities to keep the National Board of Health fully informed on the following points, namely:—

"1. As to what rules and regulations they have adopted.

"2. As to how far they can carry out the rules and regulations.

"3. As to what aid they think it is necessary that the National Board shall furnish, in order

that proper rules and regulations may be enforced. With regard to this request for aid, details should be given. This board cannot place money in the hands of a local board to be expended at the discretion of the latter. It must be known what the money is to be used for; whether for the hire of inspectors or police, for the purchase of disinfectants, for the erection of sheds, for the purpose of establishing local quarantine, etc.

These statements are so clear that we should suppose they would prevent any clashing between the national and local Boards.

HOW SOME "DIRTY SHILLINGS" ARE MADE BY THE PROFESSION.

A physician carries on his profession for the benefit of himself and family in the first instance, and it is proper and honorable in him to make as much money out of it as he honestly can. There are, however, certain practices which are pursued, more or less, in different parts of the country, which cannot be approved by a sound moralist; and the proof that they are known to be contrary to a safe doctrine is, that they are always conducted with an endeavor at secrecy. Several of these we shall proceed to mention.

It is notorious that certain retail drug stores in this and other cities offer practitioners a percentage on prescriptions which are made up at their counters; and it is well known also that not a few practitioners take advantage of such offers. In fact, they go further, and throw all their influence against stores where they will not be paid this percentage. Yes, we have even had reported to us, in this city, compacts made between physicians, and prominent ones, too, holding official positions in the profession, and a particular druggist, by which patients were forced to buy of this druggist only, through the use by the physician of private formulæ, known only to these parties. The charge to the patient was excessive, and the discreditable plunder thus obtained was divided between the two thieves—we mean the two gentlemen.

Another plan to fleece patients has been devised by the enterprising managers of establishments devoted to surgical treatment or to the care of special diseases, as cancer, etc. These managers, who always sport the title of M.D.,

send circulars widely among the profession in rural districts, claiming that their establishments are admirably supplied with everything needful, and are of real benefit to most patients; and having, by these statements, and numerous testimonials, allayed doubts as to their standing, they offer a percentage on the payments made by any patient the doctor will send to them. It is in this way that many of these "institutes" manage to pay their rentals and clear a handsome profit; they suborn the regular profession by money unrighteously drawn from confiding sufferers.

How such "arrangements" are regarded by the law, is illustrated in a case recently before the court at Manchester, England. It was brought to light that a doctor made it a point to send as many persons as he could to a particular dentist to have their teeth operated on; and that for this service the dentist remunerated him with a percentage on the proceeds derived from these cases. This does not seem like an aggravated case at all, inasmuch as there was no evidence that the patients were charged above the ordinary fee; nevertheless, the judge stigmatized it as "monstrous," and discreditable to professional men.

It does not seem to us that the professional conscience in this country is sufficiently sensitive to the impropriety of making money in this way. It is improper, because it is deceitful and unfair. No physician would dare tell a patient that he was to get such a commission. The patient expects to receive advice of a wholly disinterested kind when he asks what drug store to buy his prescription at, or what establishment to patronize. In common trading such commissions are usual, and everybody knows it; but in the professions they are discreditable, and should be unknown.

Physicians have much to say of the impropriety of druggists prescribing for the sick; of their repeating prescriptions without authority; of their putting up and selling proprietary medicines; of their vending adulterated medicines; and various other tricks of the trade; but to our minds the druggists could often make strong

points against the greed of the physicians to obtain percentages, the frequent unnecessary prescribing of compounds, their dispensing and sale of medicines in their offices, and other practices not more praiseworthy. Let us try to remove this beam from our own eye before we become pressingly anxious to extract the mote from the optic of the druggist.

NOTES AND COMMENTS.

Therapeutical Notes.

AGARIC IN NIGHT SWEATS.

Professor Peter says, in his lectures on the treatment of tuberculosis, that agaric is one of the most efficient drugs for curing the debilitating night sweats of tuberculosis. This use of the drug is not new; it was first mentioned by Andral, according to the U. S. Dispensatory. The dose is from 20 to 30 centigrams.

IODOFORM OINTMENT IN GONORRHOEAL ORCHITIS.

Dr. Alvarez recommends—

R. Iodoform,	1 to 2 parts	
Lard,	30 "	M.

To be rubbed into the testicle. It relieves the pain in the course of an hour or two, notably abridges the duration of the orchitis, prevents consecutive induration, and does not induce salivation, like mercurial ointment. For it may be substituted elastic collodion, containing from two to six parts of iodoform to thirty of collodion.

FORMULA FOR GUAIAIACUM.

The repulsive flavor of this drug can be partly overcome by using the following formula, suggested by Mr. Balmanno Squire, of London:—

R. Tincturæ guaiaci,	$\frac{3}{5}$ ss-j
Glycerinæ,	$\frac{3}{5}$ j-ij.

If the tincture is prepared from pure rectified spirit, the above mixture will be free from cloudiness.

PURULENT CONJUNCTIVITIS OF THE NEWBORN.

The Parisian treatment is thus described by a correspondent of the *Southern Clinic*. Reverse the conjunctivæ and apply twice daily—

R. Argenti nitratis,	25 centigrams	
Aquæ destil.,	10 grams.	M.

Neutralize the above immediately with—

R. Sodii chloridi,	3 grams	
Aquæ destil.,	10 "	M.

Drop thrice daily into the eye the following collyrium:—

R. Atropiæ sulphatis,	2 to 5 centigrams	
Aquæ destil.,	10 grams.	M.

Apply linen compresses, dipped in ice water, to the eyes. to be continued both night and day

for several days. The compresses should be held in their position on the eyes by a bandage, to prevent the constant motion of the child from removing them.

ERYTHEMA AND PRURITUS VULVÆ.

For these affections Dr. Braun-Fernwald, of Vienna, recommends—

R. Unguenti petrolei,	5 grams	
Unguenti cetacei,	3 "	
Zinci oxidi,	3 "	M.

An ointment for local use.

Does a Chancre Necessarily Precede Syphilis?

This question is answered with a decided negative, by Dr. Martin P. Scott, in the *Southern Clinic*. He believes in direct absorption without resultant sore, arguing as follows:—

"With the secretions of the vagina the penis comes in contact again and again, being in a state of high vascular and nervous excitement. Could there be more favorable conditions for absorption if the mucous membrane or delicate covering of the penis is an absorbent surface without abrasion, of which there can be no doubt. If absorbed, will there necessarily be a chancre on the absorbing surface? I think not.

"Most cases of syphilis, I believe, are transmitted to women by men who have no syphilitic sore on the penis. My opinion is based upon the idea that men with sores on the penis are in no condition for the amatory collision, and none but a brute would, under the circumstances, imperil even a strumpet. It is through the infected secretions that parties are, for the most part, contaminated. Nor is it necessary that a sore or chancre should be the consequence of infection.

Euonymin as a Purgative.

A correspondent of the *British Medical Journal* writes—

I have administered euonymin extensively during the last few months, both in hospital out-patient and private practice, and have been enabled to note its action in over fifty cases. In many instances I gave it alone, as a two-grain pill at bedtime, and invariably found it to act as a purgative, though tardy in its action and apt to cause griping. My usual plan now is to give two grains at bedtime for two nights running, following it each morning with a saline purge. I found that in most cases one dose was not sufficient. The saline purge entirely does away with the unpleasant symptoms of griping.

I consider euonymin a most valuable remedy in all cases of biliary derangement, sick head-

ache, etc. I like it better than any drug I have before given for these disorders. I have not in a single instance noticed that depression which was said to follow its action.

Microscopical Appearance of Fur from the Tongue.

In a recent number of the Proceedings of the Royal Society, Mr. Butlin has a paper on this subject. He says, in every case in which there is fur on the surface of the tongue, schizomycetes are found; and Mr. Butlin even observed "a little of the glæa where no fur was perceptible to the naked eye." Thin gray fur resembles the thin gray pellicle which forms on bacterium-producing fluids. This pellicle becomes white and more opaque as it grows thicker; the fur on the tongue undergoes the same changes when deposited in unusual abundance. After cultivating portions of fur on a warm stage, several fungi were discovered, two constantly present, and these were *micrococcus* and *bacillus*. In all the author's experiments, the development of *micrococcus* went on freely during cultivation, excepting in one instance, when "so rapid a formation of *bacterium termo* took place that in the course of a few hours the whole of the fluid was clouded and obscured by its presence."

The Prevention of Infantile Ophthalmia.

A writer in the *British Medical Journal* advises as follows, in order to prevent the ophthalmia of new born children:—

The instant the head is born, and before the child has time to open its eyes, I wipe away from the eyes every trace of moisture. In this way the entrance upon the conjunctiva of all acrid discharge from the vagina is prevented. I have attended to this point in hundreds of cases, and have never known it to fail; while, in the same period, ophthalmia has repeatedly occurred in those cases where the child has been born before my arrival. Carefully to wipe the eyes of the child at the earliest possible moment has now become with me so much a point of routine that I never omit it, even in forceps cases, or in the uncommon presentations, and the result is the absence of the disease alluded to.

A New Vegetable Neurotic.

The barks of one of the *Apocynaceæ* the *Aspidosperma quebracho*, a native of Brazil, has been found by Dr. Penzoldt, of Erlangen, to be quite useful in dyspepsia depending on emphysema, bronchitis, phthisis, pleurisy, etc. A teaspoonful of a solution was given two or three

times a day. The most marked objective phenomenon after its exhibition was a reddening of the previously cyanosed or livid tint of the lips and face. The respirations generally became deeper and less frequent, and the patients expressed themselves subjectively much relieved. The first feeling after taking the drug was one of warmth in the head; many said that they had less desire to cough, and that they found expectoration easier. Occasionally sweating occurred, and in some cases abundant salivation. No bad effects were noticed.

CORRESPONDENCE.

The Decimal System.

ED. MED. AND SURG. REPORTER:—

The idea of simplicity in the decimal system as applied to medicine has not been sufficiently illustrated. Look at it a moment. Call grams dollars, parts of grams cents, and nothing can be plainer. To translate the old system into the new, all we have to do is to remember that one grain or one minim equals 06, or six cents; one dram equals 4.00, or four dollars; one ounce equals 32.00, or thirty-two dollars. Now, let us do a little translating:—

OLD SYSTEM.		NEW SYSTEM.	
R.	Strychniæ sulph.,	gr.j	= 06
	Sacch. alb.,	ʒ ij	= 8
	Acid acetic,	gtt. ij	= 12
	Aquæ dest.,	ʒ ij	= 64
R.	Potassæ acetat,	ʒ ss	= 16
	Sp. æth. nit.,	ʒ ij	= 8
	Tinct. aconit. rad,	ʒ j	= 4
	Syr. aurantii cort.,	ʒ j	= 32
	Aquæ cin. q. s. to make	ʒ iv	= 128
R.	Hydrarg. chlor. mit.,	gr.xx	= 1 20
	Camphoræ pulv.,	gr.x	= 60
	Opii pulv.,	gr.xvi	= 1
	Glycyrrhizæ pulv.,	ʒ j	= 4 M.

Divide into 20 parts.

Surely, no one possessing ordinary reasoning powers can be puzzled with this matter. Grains xvj can be written 1 | 0 | 96, the slight difference being non-essential.

The Oregon State Medical Society, at its recent meeting, unanimously approved of the decimal system, and requested its members to put it into immediate practice. Certainly nothing but indifference, stupidity or obstinacy stands in the way of the new system. I hope no physician will risk being charged with either of those imperfections.

Another idea. Suppose the meter is not mathematically the forty millionth part of the earth's meridian, who cares? All we want is a uniform rule; it matters not whether that rule be three feet or six feet. The unit is nothing. All we want is the decimal system of multiplying and dividing that unit, whatever it may be.

Canyonville, Oregon. C. H. MERRICK, M.D.

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Neuralgia—Importance of Treating the Paroxysm.

ED. MED. AND SURG. REPORTER:—

Any treatment of neuralgia that does not take into prominent consideration the paroxysm, must be, to a greater or less extent, futile. Pain exhausts and depresses the vitality to such a fearful degree that it must be checked at all hazards. Especially is this true of those cases in which the neuralgia depends upon a depraved and weakened condition of the general system. I would not detract one jot from the recognized importance of the general treatment, but would simply emphasize the importance of quelling the paroxysm of pain at its very invasion. If the neuralgia depend upon a diseased tooth, for instance, it would be unpardonable folly to content ourselves with a prompt subduing of the pain, while permitting the tooth to remain. The treatment of the attack proper, and the general treatment, are necessarily and thoroughly complimentary to each other.

Generally speaking, there seems to be a tendency among practitioners to practically ignore the treatment of the paroxysm in their management of the various forms of neuralgia. Many seem never to have realized to themselves the real worth of prompt relief in such cases as the instance in question. The very first thing to be done when called to a neuralgic patient who is being racked with agony, is to employ the most decisive means at our command. The patient is not only unspeakably grateful for such telling interference, but a vast expenditure of vital force is prevented.

To lay stress upon this point may seem to some like attempting to prove an axiom; but I know whereof I speak when I say that the importance of this matter is greatly undervalued in actual practice.

Among the various remedial agents which have been used for this immediate treatment are morphia, atropia, inhalations of chloroform, aconite, Indian hemp, hyoscyamus, conium, bromide of potassium, etc. Some of this list, morphia and atropia more especially, are not merely efficient in rapidly allaying pain, but are positively curative in their action. To this fact we have the testimony of such high authorities as Bartholow, Hammond and others.

Dr. Hunter has ascertained that atropia, hypodermically injected, in sufficient quantity ($\frac{1}{16}$ to $\frac{1}{8}$ grain), has a permanently beneficial influence in tic-douloureux and sciatica. While Dr. Anstie has stated that the same remedy is particularly useful in peri-uterine and dysmenorrhoeal neuralgia. Again, morphia, the most widely used of the foregoing agents to several varieties of neuralgia, may be administered (hypodermically, of course) with confident prospects of lasting good. I have recently administered it in tic douloureux, with excellent curative effect. It would seem entirely superfluous to here offer even a word of caution as to the danger of the morphia habit. A little good whisky will, in some cases, frequently abort an attack, as I have seen abundantly verified.

We are well aware, however, that many of these agents have their drawbacks; but these are insignificant when weighed in the balance

with the prostration and physical depression incident to an unallayed and violent neuralgic paroxysm. Atropia, though its effect in alleviating pain is more enduring than that of morphia, has attendant upon its action hallucinations, and occasionally delirium; and this, too, when given in legitimate doses. Attendant upon the action of morphia are frequently a persistent nausea and itching of the cutaneous surface (but we must remember that this nausea frequently occurs in the course of an attack of neuralgia, even when morphia is not exhibited).

Then again, following in its wake are some very unpleasant cerebral and other effects. These, as was first shown by Bartholow, may be prevented, or at least alleviated, by a full dose of bromide of potassium. As is well known, however, the ill effect of each of these drugs (morphia and atropia) are very largely counteracted when used in combination. We find now and then a case where morphia not only fails to afford any relief, but really intensifies the agony of the paroxysm. Tanner says in such instances he finds no remedy so valuable as a mixture of atropia and arsenic (gr. $\frac{1}{16}$ of the former to $\frac{1}{32}$ of the latter), used hypodermically.

Any, or indeed all, of the objections and ill effects incident to the administration of remedies to cut short the paroxysm, we repeat, do not form the slightest argument, in the face of facts, against the course of treatment above advocated. And the physician who will be rewarded by the best results in the management of neuralgia, especially where the attacks are violent, is the one who decisively acts upon the importance of arresting the paroxysm. J. W. HICKMAN, M.D.

1945 N. 11th St., Phila.

Corporal Punishment.

ED. MED. AND SURG. REPORTER:—

My attention has for a number of years been called to injuries caused by occasional cases of too severe, or recklessly executed, punishment of school children. Foremost educators, while not believing it expedient to prohibit corporal punishment, acknowledge that injury, injustice, and sometimes death even, do now and then occur from its use. These serious results may arise from fright, or from concussion of the brain, produced by merely jerking the child about, or—the most frequent cause—inflicting the punishment upon the child's head. I have known death to occur solely from the fright, although fatal results cannot likely arise except from immediate blows upon the head.

No one form of punishment is so dangerous as boxing the child upon the ear. Not only is injury to the organ of hearing often produced, but inflammation of the brain frequently follows, and death has been the result.

In the family, this matter of injurious methods of punishment is not by any means beyond our influence, if we will but take pains to inform people upon the subject.

If corporal punishment is allowed at all in schools, its use ought to be carefully guarded. No teacher should be allowed to punish a child by rudely jerking it about, by striking it any-

where upon the head, or with any instrument whatever, except it be flexible and with smooth edges. These requisites are best fulfilled by a rubber strap with rounded edges. Moreover, no punishment should be permitted except it be inflicted in the presence of a principal, another teacher, or a school trustee, as a salutary check upon undue temper or excitement. Every case of corporal punishment should also be reported in writing to the Board of School Trustees, stating the offence of the pupil and the manner and severity of the punishment. I have known the above rules adopted by a board of school commissioners to reduce the number of cases of corporal punishment eighty-eight per cent. in one month, and the schools continued meanwhile even more orderly and satisfactory than before.

I am about collecting statistics of serious and fatal injuries caused by corporal punishment, and I write this article to request all the readers of the MEDICAL AND SURGICAL REPORTER to forward to me statistics and history of all cases that may have come to their knowledge. State the date, place, name of child, character of punishment, and its results; also the offense for which the punishment was inflicted. Add other points, history, etc., if time and inclination suggest. I urge all to give the subject the little attention needed, to write me the main facts, at least, of all cases they have known, and thereby make the report more valuable. The information thus obtained I will communicate through this journal.

Bloomington, Ill.

B. P. MARSH, M.D.

[The above is timely. We have had within the last six months two cases of partial deafness under our care, both distinctly traceable to punishment by "boxing the ears."—ED. REPORTER.]

Malarial Fever.

ED. MED. AND SURG. REPORTER:—

In the early stages of the ordinary forms of malarial fever it is always safest and best, from the infant up, consulting individual peculiarities, in chill, fever or sweating stage, to use without delay a combination of calomel, opium (or ordinarily I prefer it in form of Dover's powder, made with chlorate instead of sulphate of potash) and quinine or cinchonidia (I tested the cinchonidia from July 1st till November 1st, 1878, in 1500 cases of malarial fever, and in proportion of five to four of quinine, found it equally efficient).

R.	Calomel,	grs. v-xv	
	Pulv. doveri,	grs. xv	
	Cinchonidiae sulph.,	grs. xxiv.	M.

Make eight doses for an adult.

Sig.—Give one every three hours till fever subsides, in capsule or tissue paper.

This course may be steadily pursued from forty-eight to ninety-six hours, if required. On the subsidence of the fever continue cinchonidia, in three-grain doses, for forty-eight hours. If found in the intermittent stage, with but little time to go on, give all your medicine at one dose. If the stomach is very irritable, give a decided hypodermic of morphia, and go on with the

preceding treatment so soon as the effect of morphia is decidedly felt; repeat at once any dose that may be vomited. If symptoms are threatening, and time is short, give a full mercurial and hypodermic of morphia, to be followed in fifteen minutes by from two to twenty grains, hypodermically, of a neutral solution (prepared with diluted sulphuric acid) of quinine, sixty grains to the ounce of water. If the attack be of a congestive character, which will rarely happen if it has been possible to pursue the course indicated, use the same combination in large quantities. If the brain be threatened, or the congestion be prolonged, bleed freely, so as to restore the equilibrium and hasten the possible action of the internal or hypodermic medication. In the hemorrhagic variety, dropping entirely and through all the treatment opiates in any form, the same course must be followed, only adding here that in this variety, where the mercurial action is most urgently required, it may be hastened by triturating the calomel, for at least ten minutes, thoroughly with brown sugar. During all the forms a saturated solution of chlorate of potash is freely used, to which may be added, if the tongue is flabby and indented, a teaspoonful of bicarbonate of soda to the tumbler of potash solution; of this one tablespoonful may be given hourly during the day. Finally, as a tonic, to assist, I have never found anything more efficient to build up than—

R.	Tinct. ferri chlorid.,	f. 3 v
	Fld. ext. nucis vom.,	
	Acid nitro-muriat.,	
	Liq. potass. arsenit.,	aa ꝑc.

Mix slowly (fifteen minutes) in mortar. Tie down cork.

Sig.—Take twenty-five drops after each meal, in half a glass of water.

For the first fourteen days after relief from fever, take with each dose of this two grains of cinchonidia. After that use full doses of the antiperiodic on the recurring days. Continue tonic as required. A faithful pursuit of the above plan will certainly give about the best attainable results. EDWARD H. SHOLL, M.D.

Gainesville, Ala.

Hypodermic Injections in Cholera.

ED. MED. AND SURG. REPORTER:—

I noticed an article in the last number of your journal calling attention to the great value of hypodermic injections in cholera morbus. It may be interesting to know that this plan has met with great success in the treatment of Asiatic cholera, and is now widely used in the East. Dr. Charles M. Fisher, late of New York, now enjoying a large practice at Nagasaki, Japan, told me a few weeks since, during my visit to that country, that he treated all his cholera cases—and a year never passes without many of them—with the administration of a large hypodermic injection of morphia, either alone or associated with atropia, and that if the injection could be given as soon as the first symptoms were manifest the cases invariably recovered. Dr. Fisher's large experience and

emphatic expression of his opinions on this subject are worthy of attention.

J. M. KEATING, M.D.

Philadelphia, August 16th.

NEWS AND MISCELLANY.

The Yellow Fever.

The steady progress of the epidemic in Memphis has been less startling than last year, but for all that, sure and fatal. From 20 to 30 new cases daily, in a town so depopulated as Memphis now is, and where of those that remain so many are protected by previous attacks, is indicative of a potent and concentrated infection. Of other towns, Corinth, Miss., has had one or two cases. Mayersville, Miss., is also reported as suffering. It has been very properly decided to continue perfecting the system of isolation of Memphis, under the rules of the National Board of Health, which have already given such good results; to use every possible means to induce the negroes, who constitute the main source of danger in Memphis, to move into camps, and thus deprive the fever of material to work on; to secure the isolation of cases and affected houses, blocks and districts, and to effect this by combining as far as possible the resources of local, State and national boards with those of the Howard Association and of the taxing district and county authorities, and thus limit the spread of the disease.

Dr. W. L. Coleman, of San Antonio, Texas, who was ordered by the National Board of Health to investigate the origin of the yellow fever prevailing in Memphis, has been at work for a month past, and his investigations convince him that the germs were imported direct from the West Indies, and that they passed the New Orleans Quarantine unchallenged, and arrived in Memphis some time in June. The Howard Association had last week 207 nurses attending 196 families, 120 of whom are whites and 76 colored. Their expenses daily aggregated \$900. The total deaths from yellow fever for the week ending at 6 p.m. Saturday, August 16th, were 46; to that date, 139.

A Victim of the Quinine Speculators.

Dr. D. J. Roberts, of Nashville, pays us his compliments in the last number of the *Southern Practitioner*, for what we have said on the quinine question. He has discovered that we have been paid by the quinine manufacturers to advocate the repeal of the duties on quinine and bark! Few discoveries of his can equal this. As for the terms in which he announces this discovery, they are such as we expect in the *Southern Practitioner*, the strong point of which has always been its supremacy in Billingsgate.

We pardon Dr. Roberts for his charge against us. We shall not use the *tu quoque* argument. We do not believe Dr. Roberts was paid by the drug sharps of London and New York; he was simply one of their tools, the catspaw they used to pull their chestnuts out of the fire; and we suspect his rage at us is because he is waking up to this not pleasant fact. We pity him.

Organization of the U. S. A. Medical Department.

According to the Act passed by the last session of Congress, the Medical Department of the Army will hereafter consist of one Surgeon General, one Assistant Surgeon General, one Chief Medical Purveyor, four Surgeons, with the rank, pay and emoluments of Colonels, two Assistant Medical Purveyors, eight Surgeons, with the rank, pay and emoluments of Lieutenant Colonels, fifty Surgeons, with the rank, pay and emoluments of Majors, and one hundred and twenty-five Assistant Surgeons, with the rank, pay and emoluments of Lieutenants of Cavalry for the first five years' service, and with the rank, pay and emoluments of Captains of Cavalry after five years' service.

Results of Treatment in Vienna.

There is strong reason to believe that the modern treatment of disease in Germany has greatly deteriorated since the days of Niemeyer. Theorizing, histology and diagnostic refinements have taken the place of the effort to cure disease by rational empiricism. Witness the next to worthless therapeutics in Ziemssen's *Cyclopaedia*. A Vienna correspondent in the *Canada Medical and Surgical Journal* gives some striking statistics. In Bamberger's clinic, of 27 cases of pneumonia, 17 died; 24 per cent. of all cases of typhoid fever die; facial erysipelas is "frequently fatal," etc. We do not believe that the case book of the average American physician shows anything like this mortality; and our city hospitals certainly do not. It looks as if medical science in Germany was running to seed.

The Season Abroad.

England has been having an unprecedentedly cold, wet and stormy summer; nevertheless, the public health has been good, and the mortality unwontedly low. In Switzerland the South wind, the *Fohn*, has been steadily blowing, causing heavy floods and much dampness, interfering greatly with pleasure and health seekers. Neither the high resorts, as Davos, nor the low ones, as the Riviera, Nice, etc., report so well on last spring and winter as usual.

Items.

—A Constantinople dispatch says: Some cases of Asiatic cholera are reported here, but they are believed to be sporadic.

—The Atlantic City *Review* is authority for the statement that Dr. Rockwell, of Aiken, South Carolina, contemplates the establishment of a sanitarium at Atlantic City.

—The New York artist, Mr. F. B. Carpenter, has finished a nearly full-length portrait of Dr. Crawford W. Long, late of Athens, Ga., who used ether to destroy pain in surgical operations March 30, 1842, nearly three years before Horace Wells discovered that nitrous oxide gas was also an effective agent to produce a similar result, and more than six years before Sir James Y. Simpson demonstrated that chloroform was as effective.

American Otological Society.

At the annual meeting of this Society, held in Newport, R. I., July 22d, the following officers were elected for the ensuing year: President, Dr. A. M. Buck. Vice President, Dr. Charles H. Burnet. Secretary and Treasurer, Dr. J. J. B. Vermeyne. Publication Committee, Dr. J. O. Greene, Dr. Clarence J. Blake, and Dr. Vermeyne. Committee on Membership, Dr. George Strowbridge, Dr. H. D. Noyes, and Dr. C. J. Blake.

Personal.

—Dr. Alban S. Payne, of Markham, Fauquier Co., Va., has been elected Professor of Theory and Practice of Medicine in the Southern Medical College of Atlanta.

—Dr. E. S. Gaillard, editor of the *American Medical Biweekly*, has severed his connection with the Kentucky School of Medicine at Louisville.

—Dr. H. M. Paine, of Albany, N. Y., writes us that his name appears as one of the curators of the "modern school," Homœopathic Medical College, Buffalo, "without his knowledge or approval."

—We have to chronicle another medical Governor. Dr. Robitaille (M.D., McGill College, 1860) has just been named Lieutenant Governor of the Province of Quebec, in place of Lt. Gov. Letellier de St. Just, removed.

OBITUARY NOTICES.

—Dr. Edwin D. Morgan, Jr., son of ex-Governor Morgan, of New York, died at Suffield, Connecticut, on Friday. His health has been delicate for some months.

—Dr. Charles Rowland, of Brooklyn, who died August 9th, of paralysis, was born in Fairfield, Ct., in 1800, and graduated at the Yale Medical School in 1824. In 1825 he began to practice in Brooklyn, where he afterward remained.

—Dr. Adam E. Wright, a well known physician of Wilmington, N. C., died on the 14th of July, about 46 years of age. Agreeable in conversation, and of generous impulses, he was highly esteemed in that community.

—Dr. Horace T. Porter, twenty-nine years old, died suddenly, Aug. 14th, at his residence, in this city. He was a graduate of the University of Pennsylvania and a member of the Medical Boat Club of West Philadelphia.

—The death of Dr. Samuel Brown Wylie Mitchell, in the 55th year of his age, took place Aug. 16th. Dr. Mitchell was well known in Philadelphia, though he was less prominent as a physician than as a military and society man. During the war he took an active part in the defence of the country, and became brevet-colonel of United States volunteers. For some years, also, he served in the capacity of surgeon at the Philadelphia Navy Yard. Dr. Mitchell was a man of wealth and position, and his decease will be regretted by many friends.

QUERIES AND REPLIES.

Dr. J. L., of Ohio, asks: Is there any remedy for gall stones? Several valuable remedial measures will be found in Napheys' *Medical Therapeutics*, sixth edition; in fact, all that have any strong evidence in their favor.

Dr. F. L., of Maine.—It is, we believe, a fact that the skin of creoles and other natives of tropical climates is cooler than that of residents in cold latitudes; but we cannot find any thermometrical observations on the subject.

Dr. Ricardus, of Pa., writes: "There is a belief quite general among the people of this locality that eating tomatoes to excess produces jaundice. Is there any foundation for it?"

Ans.—We cannot recall any medical statements to this effect. Several cases have been published in the English journals, of "simulative scarlet fever," from eating tomatoes. Any reader who can give information as to bad results from their consumption will oblige us by doing so.

L-gens.—The medical law in this State (Pennsylvania) is practically inoperative.

MARRIAGES.

AMICK—TAYLOR.—At the residence of the bride's parents, "Gold Hill Farm," near Chapman, Dickinson county, Kansas, July 23d, 1879, by the Rev. Elijah Clark, Dr. M. L. Amick, of Cincinnati, O., and Miss Maggie Taylor, daughter of John Taylor, formerly of Cincinnati.

BERLET—WALTER.—On Wednesday, August 6th, 1879, by the Rev. John Thompson, at the residence of the bride, James F. Berlet, M.D., and Margaret E. Walter, all of Philadelphia.

BRODIE—KRAUSE.—On July 30th, by the Rev. F. P. Bender, William B. Brodie, M.D., and Emma C., daughter of Charles B. Krause, all of Philadelphia.

CLEVELAND—CONOVER.—In this city, on August 14th, at the First Unitarian Church, by the Rev. W. H. Furness, Samuel M. Cleveland, M.D., and Julia H., daughter of the late William A. Conover, of Freehold, N. J.

LAWRENCE—STUART.—In Pittsburgh, on the 21st ult., by the Rev. Charles C. Thompson, D.D., Dr. E. S. Lawrence, of Philadelphia, and Miss Jeanie L. Stuart, only child of the late A. J. Stuart, of Pittsburgh.

LIGGETT—ADDY.—On July 30th, by Rev. Thomas R. List, Samuel J. Liggett, M.D., of Philadelphia, and Miss M. E. Addy, of Leeds, England.

MELLERSH—HUMPHREYS.—On Thursday evening, July 31st, at the residence of the bride's parents, by the Rev. George W. Anderson, D.D., Dr. A. H. Mellersh, of Merion Square, Pa., and Miss Clara M., daughter of Seth Humphreys, Esq., of Lower Merion, Pa.

MERRILL—SIMPSON.—In New York, on Monday, August 11th, by the Rev. Edward O. Fladd, D.D., John N. Merrill, M.D., and Miriam Simpson, daughter of George Simpson, Esq.

DEATHS.

HOUTZ.—In Canal Fulton, Ohio, on July 27th, of obstruction of the bowels, Dr. Abram Houtz, in the 67th year of his age.

LEAVITT.—In Trenton, N. J., on the 12th ult., Robbie, son of Dr. Lyman and Martha B. Leavitt, aged 6 months.

PETERSON.—In this city, on the 23d ult., Blanche, wife of Dr. Robert E. Peterson.

READ.—On the 28th ult., Dr. Zachariah Read, of Mount Holly, N. J., in the seventy-first year of his age.